

DAVE BAXTER Vice President

Oconee Nuclear Station

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Date: July 22, 2008

U.S. Nuclear Regulatory Commission Document Control Desk Washington, D.C. 20555

Subject:

Oconee Nuclear Station

Docket Nos. 50-269, -270, -287 NRC Event Number 44312

10 CFR 21 Notifications - Identification of Defect

Breaker Charging Motors, ABB Part Number 709799T11 (Lamb

Electric Part Number 116848-00)

Gentlemen:

Pursuant to 10 CFR 21.21(d)(3)(ii), Duke Energy Carolinas, LLC (Duke) is providing the required written notification of the identification of a defect. This information was initially reported to the NRC Operations Center at 11:01 EDT on June 23, 2008. The NRC assigned event number 44312 to this notification.

The attachment to this letter provides the information requested by 10 CFR 21.21(d)(4). In addition, the attachment discusses the relevance of this issue to Duke's Oconee Nuclear Station. There are no commitments contained in this letter or its attachment.

Should you have any questions or require additional information, please contact Robert C. Meixell, in Oconee Regulatory Compliance, at (864) 885-3279.

This issue is considered to be of no significance with respect to the health and safety of the public.

Very truly yours,

Dave Baxter, Vice President Oconee Nuclear Site

Attachment

IE19 NRR

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cc: Mr. Luis A. Reyes
Administrator, Region II
U.S. Nuclear Regulatory Commission
61 Forsyth Street, S. W., Suite 23T85
Atlanta, GA 30303

Mr. Leonard Olshan, Project Manager Office of Nuclear Reactor Regulation U.S. Nuclear Regulatory Commission Mail Stop O-8G 9A Washington, D.C. 20555

Mr. Andy Hutto NRC Senior Resident Inspector Oconee Nuclear Station

Mr. Terry Malloy ABB MV Service Quality Manager 2300 Mechanicsville Rd. Florence, SC 29501

Attachment

Notification per 10 CFR 21.21(d)(3)(ii)

This notification follows the format of and addresses the considerations contained in 10 CFR 21.21(d)(4)(i) - (viii).

(i) Name and address of the individual or individuals informing the Commission:

Dave Baxter Vice President Oconee Nuclear Station 7800 Rochester Highway Seneca, SC 29672

(ii) Identification of the facility, the activity, or the basic component supplied for such facility or such activity within the United States which fails to comply or contains a defect.

Facility:

Duke Energy Carolinas, LLC (Duke) Oconee Nuclear Station 7800 Rochester Highway Seneca, SC 29672

Basic component which fails to comply or contains a defect:

Duke Stock code 127794, ABB part number 709799T11, charging motors for 5HK (4160 V) switchgear breakers
Duke purchase order ON 38139
The part which ABB furnished as their part number 709799T11 was Lamb Electric part number 116848-00. (Prior to this order, Lamb Electric part number 115489 had been supplied under ABB part number 709799T11

and used successfully in associated switchgear at Oconee.)

(iii) Identification of the firm constructing the facility or supplying the basic component which fails to comply or contains a defect.

Supplied by:

ABB 2300 Mechanicsville Road Florence, SC 29501

Manufactured by:

Ametek Lamb Electric

(iv) Nature of the defect or failure to comply and the safety hazard which is created or could be created by such defect or failure to comply.

Nature of the defect:

The parts (charging motors) supplied by ABB as Part number 709799T11 exhibited unexpected and unacceptable operating characteristics. ABB supplied Oconee with similar components from the same manufacturer (Ametek Lamb Electric). Although the parts in question were assigned the same ABB part number, they exhibited different operating characteristics than previously supplied motors. The change in operating characteristics caused the motors to be unacceptable substitutes in this application.

Safety hazard which could be created by such defect:

Because of the differences in operating characteristics between the supplied part and the intended part, any breaker with the supplied part installed might not have operated properly. This is especially true for scenarios involving minimum voltage on the busses supplying control power to operate the switchgear.

The motors were intended for use in safety related 4160V switchgear breakers. In the associated breakers, the motors are used to compress ("charge" or "cock") springs which, when released, cause the breaker to close. At minimum rated voltage, the supplied motors could not "charge" the closing springs.

The two specific motors checked out of supply when the issue was discovered had been intended for use in breaker refurbishment. One of the breakers supplies power to an Auxiliary Service Water pump which performs a backup emergency feedwater function. As warehouse stock, these motors or the eight remaining in stock (total of 10 motors) could

have been installed during repair or refurbishment of breakers in the plant. This includes breakers supplying power to any of a number of safety related components, including components performing the Emergency Core Cooling function.

The difference in performance was discovered during maintenance testing of the two motors prior to returning the affected breaker to service. The two charging motors involved in maintenance testing and the remaining eight stocked motors from the subject batch were removed from supply.

(v) The date on which the information of such defect or failure to comply was obtained.

May 22, 2000 - The original issue was identified in Oconee corrective action program PIP O-00-1990. This is a legacy issue which was identified for re-evaluation during an assessment of Oconee's Part 21 processes. The assessment is documented in Oconee corrective action program PIP O-02-7236. The Oconee Part 21 evaluation was initiated on April 29, 2008, and completed on June 16, 2008.

<u>June 16, 2008</u> - Oconee corrective action program PIP O-02-7236, corrective action (CA) #7 concluded the identified deviation could create a substantial safety hazard and is therefore reportable pursuant to Part 21.21(d)(1)(ii).

June 23, 2008 - Oconee Site Vice President was notified of the completion of the evaluation pursuant to Part 21.21(a)(3)(ii). (NOTE: Oconee staff personnel normally work a four (4) day work week, thus this notification was made on the fifth working day.)

<u>June 23, 2008</u> - NRC was notified of the defect via ENS pursuant to Part 21.21(d)(3)(i). The NRC assigned event number 44312 to this notification.

(vi) In the case of a basic component which contains a defect or fails to comply, the number and location of all such components in use at, supplied for, or being supplied for one or more facilities or activities subject to the regulations in this part.

Duke is aware of the 10 electric charging motors from purchase order ON 38139. Duke does not have information from ABB or otherwise regarding the number of similar components in use at, supplied for, or being supplied for non-Duke facilities.

All 10 electric charging motors purchased by Duke under purchase order ON 38139 were returned to ABB, Florence, SC for evaluation. Duke has not received any subsequent replacement motors from ABB under Duke catalog ID number 127794.

Duke did not sell any of the charging motors purchased under purchase order ON 38139 to other entities.

(vii) The corrective action which has been, is being, or will be taken; the name of the individual or organization responsible for the action; and the length of time that has been or will be taken to complete the action.

All 10 electric charging motors ordered on purchase order ON 38139 were returned to ABB, Florence, SC for evaluation. None of the 10 subject electric charging motors is in use or present at Duke nuclear facilities.

Corrective actions taken or planned:

No further corrective actions were taken or are planned.

Length of time to complete the action:

All Duke corrective actions have been completed. Subsequent to this issue, Duke has used the ABB supplied Lamb Electric part number 115489, or a Ryobi electric charging motor; ABB catalog ID number 488551, ABB part number 168631T01.

(viii) Any advice related to the defect or failure to comply about the facility, activity, or basic component that has been, is being, or will be given to purchasers or licensees.

ABB indicated that, after being returned to ABB in 2000, the subject motors were found to initially exhibit high running current when tested. However, after an unspecified period of running the motor(s) to seat brushes and distribute bearing lubrication, the running current returned to values within the rated limits.